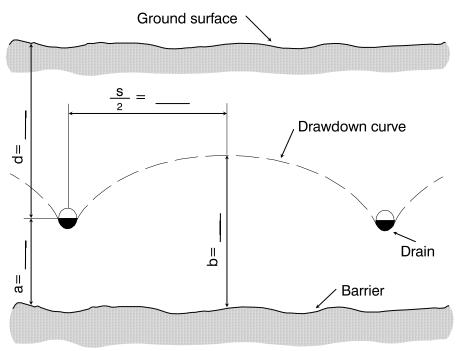
7. Depth of outlet:

SUBSURFACE DRAIN DATA SHEET

Conservation District: ______ Field Office: _______ Item No. ______ 1. Design area: ______ acres 2. Required removal rate (Q_d): ______ in/hr 3. Design soil series: ______ t. Hydraulic conductivity (P): ______ in/hr 5. Depth to barrier: ______ ft 6. Depth of drain (d): ______ ft



Sketch and nomenclature used in ellipse equation

Where: a = depth from drain to barrier (ft)

b = depth from drawdown curve to barrier (ft)

d = depth of drain (ft)

S = drain spacing (ft)

S = ____ ft. from Exhibit 14-10 National Engineering Field Handbook (NEFH) or solve the following equation:

$$S = \sqrt{\frac{4P(b^2 - a^2)}{Q_d}} = \sqrt{\frac{4())() -)}{g_d}} = \frac{1}{Q_d}$$

Where: P = hydraulic conductivity, in./hr Q_d = removal rate in./hr a and b = See sketch.

TABULATION OF DATA - EACH DRAIN										
Drain Line No.	Station No.	Elev. Natural Ground	Elev. Drain Invert	Ft. of Fall	Length ^{1/} (ft)	Grade ^{1/} (ft/ft)	Drainage Area (acres)	Drainage Coef. 1/ (in/24 hr)	Q Req'd (cfs)	Pipe Size ^{2/} (in)

^{1/} See NRCS conservation practice standard Subsurface Drain, Code 606.

Designed by:	Date:	
Checked by:	Date:	
Approved by:	Date:	

From Exhibit 14-13 NEFH or compute from equation: $d_i^{8/3} = \underline{(Q)(n)}$ (0.000614) $s^{1/2}$